

TWO-DAY TURNAROUND

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FRIENDLY RELATIONS The CGC Juniper and the Canadian Coast Guard vessel Sir William Alexander participate in a joint-service law enforcement exercise.

Into the foggy morning sunlight sailed the CGC Juniper from its homeport in Newport, R.I., Sept. 24. What was supposed to be a 40-hour voyage to Halifax, Nova Scotia, became an eight-hour round trip to Vineyard Sound.

Three and a half hours and 35 miles into the transit to Halifax, the high crank case pressure alarm went off, followed by the jacket water high temperature alarm and the jacket water high temperature vital alarm. The engine secured itself, and the engineers quickly investigated the cause of the alarms.

With only 96 hours to arrive in Halifax for an awards presentation ceremony and a joint-service law enforcement exercise, engineers aboard the Juniper, with the help of Maintenance Augmentation Team Newport personnel, contributed roughly 230 man hours in two days to repair the engine casualty.

In order to determine what the problem was, the engineers needed to remove the cylinder head, but they didn't have the tools to do it. There are less than 10 tools in the Coast Guard capable of doing this. MAT Newport has one of them on hand at all times, so, the Juniper turned around and headed back home.

Minutes after the Juniper was safely moored, the work began.

"If we wouldn't have had leftover parts from the last time, we would still be on the pier," said MKC Micha Wisniewski.



▲ **MR. FIX-IT** MK2 Matthew Husler guides a cylinder liner down the ladder to the Juniper's engine room.

The engineers and MAT personnel struggled to disassemble the cylinder head until 11 p.m. Sept. 27. After a 16-hour day, they returned at 7 a.m. the following day to continue the work. Finally at mid-morning, they found the source of the problem. The O-ring on the

top of the cylinder liner was wearing away causing the engine to overheat, said MKC Micha Wisniewski, an engineer aboard the Juniper.

Luckily the Juniper's engineers were prepared. They had another O-ring in their warehouse and began to replace the worn-out one that day.

"If we wouldn't have had leftover parts from the last time, we would still be on the pier," said Wisniewski.

The MAT personnel were also a huge help to the Juniper, said Wisniewski.


"We're the only Maintenance Augmentation Team on the East Coast for 225s," said MK2 Matthew Husler, one of the MAT's engineers.

The MAT crew has completed the same type job numerous times on other 225-footers and has become proficient in pulling cylinder heads and liners, Husler added.

The engineers worked a 12-hour day Sept. 25 to reassemble the engine. As a result, the Juniper was ready to leave again the following day. The "black hull" pulled into Halifax about 4 a.m. Sept. 28, just in the nick of time.

A mere three and a half hours later, the Commandant of the Coast Guard stood on the deck above the Juniper's engine room.

Almost everyone involved in repairing the engine cited good teamwork and flexibility as the biggest contributing factors to such a quick turnaround.

"Whenever need be, we work," said Husler, putting into words the work ethic of all the engineers involved. "If we need to work until two in the morning, we work." 



▲ **INSPECTOR GADGET** MKC Micha Wisniewski inspects a cylinder liner before sliding it into the Juniper's engine.

